Programmes After Market Services
NPB-1NB Series Transceivers

General Information

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Introduction

NPB-1NB is a single band, single mode radio transceiver for GSM1900 networks operated in the Americas region. The transceiver belongs to GSM1900 power class 1 and has a maximum output power of 1 W.

On the internal module level NPB-1NB consists of a system/radio module, assembly parts and software module which is programmed into a flash memory chip located in the system/radio module.

The user interface has a graphical display, Simplex style keypad, earpiece, microphone, buzzer and internal vibra. External hands free units and battery chargers can be connected to the transceiver via a bottom connector. All parts of the user interface are located in the internal module, except for the keymat.

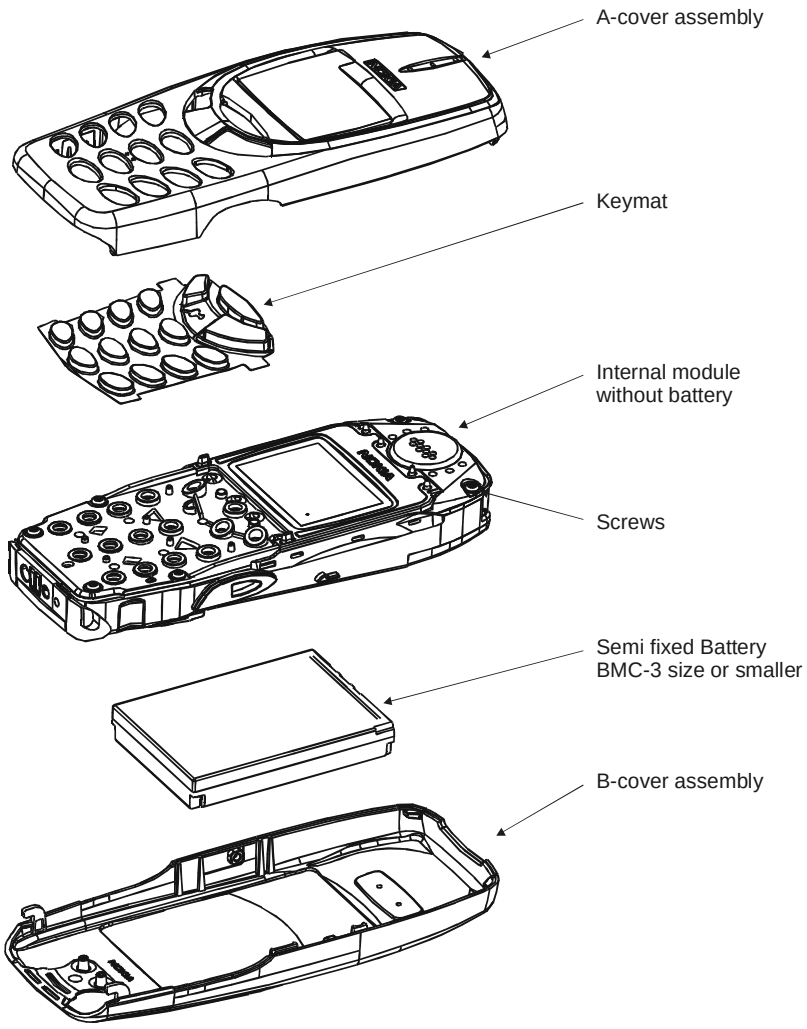

Figure 1: NPB-1NB Mechanical Concept

Front (A) and back (B) covers of the transceiver are end user changeable. No special tools are needed to remove and replace the covers. A semi-fixed type battery is located under the B-cover. Battery can not be removed without first removing the B-cover.

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NPB-1NB uses a plug-in type SIM card, accessible by removing the back cover and the battery. The transceiver has an internal antenna. No connection for external antenna is provided.

List Of Modules

Table 1: Modules list

Name of module	Type code	code	Notes
Custom Transceiver	NPB-1NB	0503471	Nokia custom tr.
Basic Transceiver	NPB-1NB	0503422	'internal module' w/o A,B covers
System/RF Module	GB9	0201513	
NPB-1NB Basic Flash SW	SW	0241455	Programmed into the flash memory at the flash/alignment station.
Assembly Parts	MNPB1NB	0262144	
NPB-1NB SW Settings	SW	0241456 0241998	PPM-A Package PPM-B Package
NPB-1NB PPM SW Data Flds	SW	0241456	Programmed into the flash memory at the label station.
Type Label		9381066	
Co-Label	N/A		Please note that Co labeled covers will not be replaced
A-cover assembly	N/A	9451807	Navy Blue.
B-cover assembly	N/A	9451797	Navy Blue.

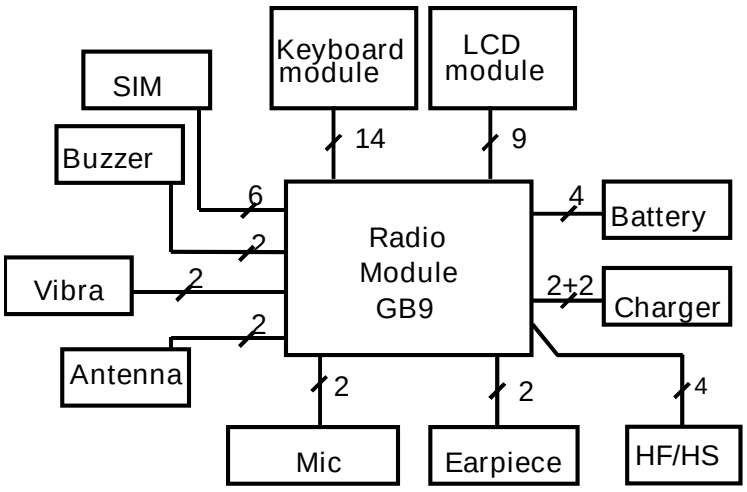

Figure 2: Interconnections

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General Specifications

Table 2: General Specifications

Parameter	Value and unit
Cellular system	**GSM1900**
RX frequency band	**1930.2 ... 1989.8 MHz**
TX frequency band	**1850.2 ... 1909.8 MHz**
Output power	**+0 .. +30 dBm / 1.0 mW .. 1 W**
Duplex spacing	**80 MHz**
Number of RF channels	**299**
Channel spacing	**200 kHz**
Number of TX power levels	**16**
Sensitivity, dBm	**-102 dBm**
Frequency error, static channel	**< 0.1 ppm**
RMS phase error	< 5.0 °
Peak phase error	< 20.0 °

Mechanical Characteristics

Table 3: Mechanical Characteristics

Unit	Dimensions(mm) (W x H x D)	Weight (g)	Volume (cm^3)	Notes
Transceiver with BMC-2 battery	115 x 49 x 22.5	120	97	
Transceiver with BMC-3 battery		134		
Transceiver with BLC-2 battery		106		
Transceiver without battery pack		76		
System/RF module	108 x 42			
BMC-2 640 mAh NiMH battery	53 x 38.3 x 6.6	44	13.4	Standard Janette battery
BMC-3 900 mAh NiMH battery	53 x 38.3 x 8.8	58	17.9	Standard Janette battery
BLC-2 850 mAh Li-Ion battery	53 x 38.3 x 7.1	30	14.4	Standard Janette battery

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Temperature Conditions

Table 4: Temperature Conditions

Environmental condition	Ambient temperature	Notes
Normal operation	-10 °C ... +55 °C	Specifications fulfilled
Reduced performance	+55 °C ... +65 °C	Operational only for short periods
Intermittent operation	-20 °C ... –10 °C and +65 °C ... +85 °C	Operation not guaranteed but an attempt to operate will not damage the phone
No operation	-40 °C ... –20 °C	Operation not possible but an attempt to operate will not damage the phone
No operation or storage	< -40 °C and > +85 °C	No storage; an operation attempt may cause permanent damage
Charging allowed	-25 °C ... +60 °C	
Long term storage conditions	0 °C ... +40 °C	

Operating conditions valid for the transceiver only. Recommended operating temperature for batteries is - 10 °C ... + 40 °C.

Maximum Ratings

Table 5: Max ratings

Pin / Conn	Line Symbol	Minimum	Typical / Nominal	Maximum	Unit / Notes
1 / X803	VBAT	-0.3	3.9	5.3	V
3 / X200	CHRGR+	-5.0	8.4	30.0	V

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NPB-1PB Product Selection

Handportables

The NPB-1PB is a single band handportable mobile telephone for the GSM 1900 Networks.

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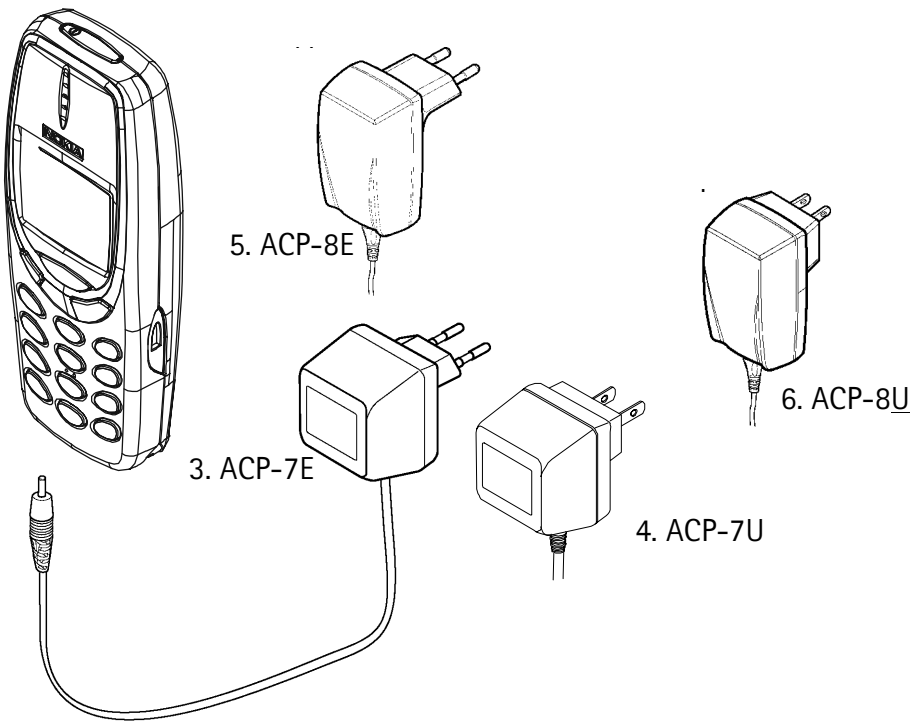

Item	Name:	Type code:	Material code:
1.	Transceiver	See Product Variants	
2.	Standard battery (NiMH 640 mAh) not shown	BMC-2	0670323
3.	AC Travel Charger(Europlug) 207-253 Vac	ACP-7E	0675144
4.	AC Travel Charger (USplug) 108-132 Vac	ACP-7U	0675143
5.	Performance Travel Charger Euro plug 90-264 Vac	ACP-8E	0675195
6.	Performance Travel Charger US plug 90-264 Vac	ACP-8U	0675196

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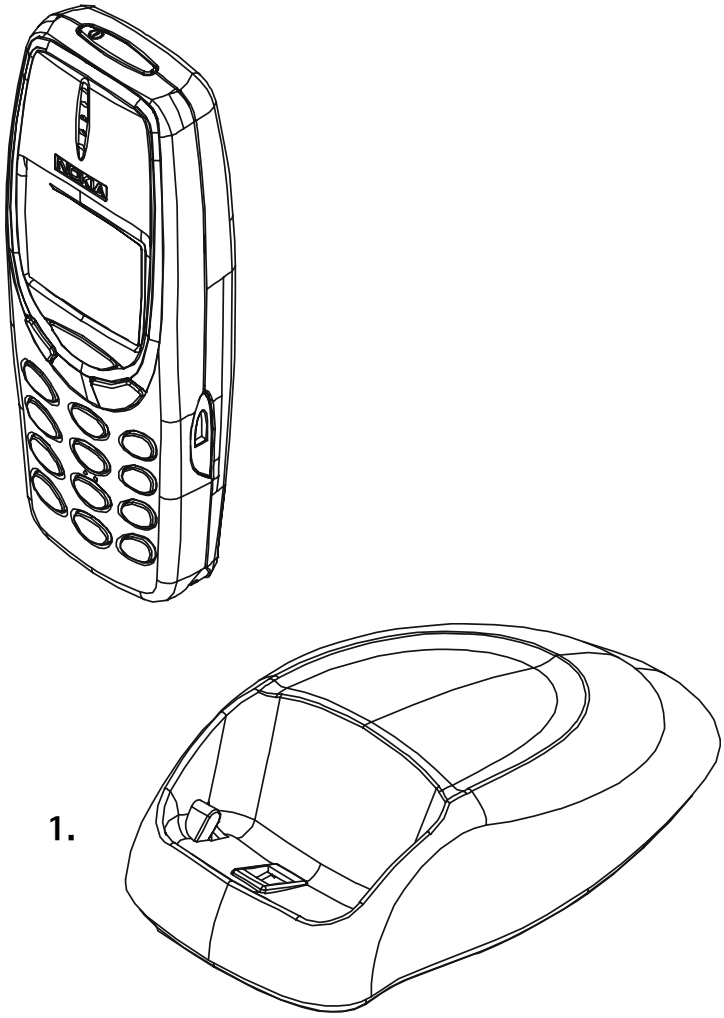
Desktop Option

The desktop option allows the user to charge the phone from the mains supply.

1.	Slot Desk Stand	DCV-10	0675203



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Accessories List

Unit/type:	Product code:
Standard Battery BMC-2 640 mAh NiMH	0670323
Battery BLC-2 850 mAh LiION	0670343
Battery BMC-3 900 mAh NiMH	0670324
AC Travel Charger ACP-7E (EUR) 207-253 Vac	0675144
AC Travel Charger ACP-7U (US) 108-132 Vac	0675143
Performance Travel Charger ACP-8E (EUR) 90-264 Vac	0675195
Performance Travel Charger ACP-8U (US) 90-264 Vac	0675196
Headset HDC-5	0694059
Headset HDE-2	0694075
Loopset LPS-3	0630244
Holster HHC-4	0720190
Desk Stand DCV-10	0675203
HF Microphone HFM-8	0690016
Plug&Play HF Cigarette Lighter Charger PPH-1	0675182
Cigarette Lighter Charger LCH-8	0675231
Cigarette Lighter Charger LCH-9	0675120

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